

## **Relationships between Empowerment, Innovativeness, Internationalization and Performance of Polish SMEs: Future Research Directions**

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*This paper presents a framework for investigating the relationships between employee empowerment, innovativeness, internationalization and firm performance. Based on current literature review, we claim that complex investigation of SMEs simultaneously including all these issues has not been conducted. Investigations of Polish SMEs have so far been few and fragmentary. In our opinion employee empowerment, innovativeness and internationalization (the sources of competitive advantages) intertwine and interconnect in a network of feedback relationships. Moreover, information technology (IT) can be used to strengthen the relationships. As a result of critical literature review, we have built a conceptual model and stated hypotheses.*

### **INTRODUCTION**

This paper presents a framework for investigating activities of Polish small and medium-size enterprises (SMEs). We concentrate mainly on the following processes: employee empowerment, innovativeness, internationalization in the context of information technology (IT) capability. These issues are defined and discussed in the second part of this paper. We are interested in the impact of these processes on firm performance.

The purposes of the research were: analysis of the level of knowledge in this field – a critical review of the literature, identification of research gap, stating the hypotheses and building a conceptual model, preparing the survey instrument, determining sample selection, preparing empirical research, indicating the directions of future research.

Based on current literature review, we claim that complex investigation of SMEs simultaneously including all these processes has not been conducted. Some previous studies examined the relationships between these processes but had a fragmentary nature, limited to the relationships only between two

issues. Our investigation combines previous work in this field and innovatory, complex approach. In our opinion employee empowerment, innovativeness and internationalization (the sources of competitive advantages) intertwine and interconnect in a network of feedback relationships. Analyzing the way in which previous researchers operated these issues, the need of analyzing them, particularly in SMEs, seems to be reasonable. The literature review confirms that previous research in this field has been mainly focused on large enterprises. Investigations of Polish SMEs have so far been few and fragmentary (Kucia, 2009; Moszkowicz & Potocka, 2005; Pinoczek, 2008; Daszkiewicz, 2008; Poznanska, 2009; Krupski, 2009). This is the reason why we made an attempt at a complete analysis of the above mentioned issues and relationships in Polish SMEs.

As a result of critical literature review, we built a conceptual model and stated hypotheses. Moreover, we prepared the survey instrument (the survey questionnaire) which will be used to verify the hypotheses in the course of empirical research. We intend to conduct studies of Polish SMEs from the Upper Silesia region. The region is the most industrial region of Poland and contributes 13 percent to Polish GDP. In this region GDP per capita is 32 761 PLN, in comparison with average in Poland 30 873 PLN (Central Statistical Office 2009). The region is the main center of heavy industries (mining, metallurgy, machine industry). Until 1989, the economy of Poland was based on a system of public ownership and administrative planning. At the moment the region is in a period of transition, experiencing rapid change as a consequence of economic transformations in Poland. In 2004 Poland became a member of the European Union what has opened a new opportunities for economic development by intensifying contacts with other EU members and access to European funding. Traditional industries undergo restructuring and modernization. Investments in new technologies which are friendly to the environment are perceived as the right direction for the region's further development. Collaboration between many research centers and entrepreneurs is expanding. Enterprises from this region are one of the most innovative SMEs in Poland – over 16 percent small and 42 percent medium-size enterprises are regarded as innovative enterprises in comparison with average in Poland 14 percent and 37 percent correspondingly (Zolnierski, 2008). Moreover, this region has the second (right after the Warsaw region) biggest number of registered and operating Polish SMEs.

## **LITERATURE REVIEW**

### **Empowerment**

Appropriately directed human resources management may contribute to improve firm competitiveness and build a permanent market advantage. Employee empowerment is one of the key concepts of human resources management. Specificity of human resources management in SMEs results from: high level of job autonomy (Kallenberg & Van Buren, 1996), close working relationships with managers (Ingham, 1970), a less developer division of labor in small firms than is the case in large company (Tsai, Sengupta, & Edwards, 2007). On the other hand, some disagreement appears in the studies because it is know that together with small firm growth, owners-managers are reluctant to delegate their authority to subordinates. Empowerment is examined from two perspectives: individual and organizational. From individual perspective, empowerment is a multidimensional cognitive state – the perception of being empowered. From organizational point of view, empowerment is set of activities and practices of managers leading to increase employees' contribution to overall organization's success (Niehoff, et. al., 2001). In the present study we focus on organizational level and assume the following definition: "Empowering people means encouraging them to become more involved in the decision and activity that affect their jobs. It means providing them with the opportunity to show that they can come up with good ideas and that they have the skills to put these ideas into practice" (Smith, 1996).

Empowerment, both from individual and organizational perspective, is a multidimensional construct. From organizational viewpoint, Petter, Byrnes, Choi, Fegan, and Miller (2002) defined seven dimensions of empowerment: power, decision making, information, autonomy, initiative and creativity, knowledge and skills, responsibility. Some researchers emphasize only transfer of power from upper to lower levels of the organization and focused on this dimension alone (Pitts, 2005).

Prior studies of employee empowerment issue have focused on large companies. Factors which affect on the empowerment process have been extensively discussed (Petter, et. al., 2002). Employee participation in organizational change, development of employee competencies, access to information, and employee participation in decision processes are studied. The empowerment process is investigated in linkage with: manager's character, characteristics of organization and information technology (Choi, 2006; Pitts, 2005; Psinos, Kern, & Smithson, 2000). The results of empowerment are considered with reference to job satisfaction, loyalty behavior and employee commitment (Wang & Lee, 2009; Niehoff, et. al., 2001). Relationships between empowerment and firm performance or innovativeness have been insufficiently examined (Hempel, Zhang, & Han, 2009; Spreitzer, 1995).

Taking into account characteristics of SMEs, the fact that employees in SMEs perform more various tasks in comparison with employees in large firms, and limited empirical research in this field, investigation of employee empowerment in SMEs is particularly interesting. The researchers have analyzed: job autonomy, (Tsai, Sengupta, & Edwards, 2007), relationship between empowerment and employee job satisfaction (Appelbaum & Kamal, 2007), and relationship between empowerment and internationalization (Gabrielsson, 2007). However, complex investigation of relationship between employee empowerment and performance of SMEs has not been conducted.

### **Innovativeness**

The terms innovation and innovativeness have many different definitions and are used in the different disciplinary literatures of economics, entrepreneurship, business and management, technology, science and engineering (Baregheh, Rowley, & Sambrook, 2009). For example, Wang and Ahmed (2004) define organizational innovativeness as "an organization's overall innovative capability of introducing new products to the market, or opening up new markets, through combining strategic orientation with innovative behavior and process". Innovativeness is frequently regarded as a measure of the degree of "newness" of an innovation (Garcia & Calantone, 2002) or some kind of measurement contingent on an organization's proclivity towards innovation (Salavou, 2004). According to Hurley and Hult (1998) innovativeness is "the notion of openness to new ideas as an aspects of a firm's culture."

Innovation refers to a process that begins with a novel idea and concludes with market introduction (Freeman & Engel, 2007). Plessis (2007) proposes that innovation is "the creation of new knowledge and ideas to facilitate new business outcomes, aimed at improving internal business processes and structures and to create market driven products and services".

Innovation is often defined as the adoption of new products or processes, but the term "new" is ambiguous. Becker and Whisler (1967) suggest defining innovation as the first of early use an idea by one of a set of organizations with similar goals. Some authors define innovation as the creation of any product, service, or process which is new to a business unit or organization (Tushman & Nadler, 1986; Damanpour, 1991). Consistent with these approaches, some studies use different dimensions to measure innovations: newness to customers, uniqueness for the market or newness to the firm (Salavou & Avlonitis, 2008). Some definitions of innovation include also the concept of successful commercialization (Cumming, 1998). Baregheh, Rowley, and Sambrook (2009) propose a general and integrative definition of organizational innovation that captures its essence: "Innovation is the multi-stage process whereby organizations transform ideas into new/improved products, service or processes, in order to advance, compete and differentiate themselves successfully in their marketplace." For the purpose of this study, we accept this definition.

As definitions suggest, the notion of innovation in multidimensional and may be present in various forms. For example, Wang and Ahmed (2004) identified five main areas of organization's overall innovativeness: product innovativeness, market innovativeness, process innovativeness, behavioral innovativeness, and strategic innovativeness. Similarly, in Oslo Manual (OECD/Eurostat 2005) four types of innovations are distinguished: product innovations, process innovations, marketing innovations and organizational innovations. These dimensions are common in literature and include overall innovative activities in firms.

Previous research examined organizational properties that enhance or hinder innovativeness. Studies have identified determinants of innovation and indicated the role of such organizational factors as: formalization, centralization, external and internal communication (Damanpour, 1991; Jansen, Van Den Bosch, & Volberda, 2006). Many measures have been developed that attempt to assess factors affecting organizational creativity and innovativeness (see Mostafa, 2005; Amabile, et. al., 1996). For example, creative climate questionnaire (CCQ) includes ten dimensions: challenge and involvement, dynamism, freedom, trust/openness, idea time, playfulness/humor, conflict, idea support, debate and risk-taking (Ekvall, 1996).

### **Internationalization**

Currently the issue of internationalization of economic activity is often discussed in specialist literature as one of the ways leading to anticipated development and increase of an enterprise's value. Internationalization of enterprises also brings a positive aspect for the development of local, regional and national structures. Specialist literature emphasizes the specifics of presented issue from the point of view of many theories, concepts and models, but complex and uniform definition of this issue was not developed. It is emphasized that internationalization is: crossing of national borders in order to create the enterprise value (Knowles, Mughan, & Lloyd-Reason, 2006), team of varied resources of the enterprise (internal and external), which in connection with psychosociological, cultural and political predispositions allow for its development beyond the borders of the country of origins (Fernandez & Nieto, 2005). The authors indicate that the abilities, competences and knowledge in the organization have a decisive impact on undertaking and effectiveness of international operations. (Ruzzier, Hisrich, & Antoncic, 2006). The specialist literature defines internationalization as process of adjustment of the company's actions (strategies, structures and resources) to the international environment (Che-Senik, et. al., 2007). Additionally, the internationalization process is presented as the method for implementation of key elements of the company's strategy (Daszkiewicz, 2008). Internationalization is also considered as a process within which the companies open and respond to international abilities and threats, undertaking various tasks executed abroad (Thomas-Morgan & Jones, 2009). The activity defining internationalization is the execution of reactive (undertaking and strengthening of cooperation) and proactive (entering into new markets of potential customers) strategies with consideration of internal and external development barriers (Arranz & Arroabe, 2009). The specialist literature also presents the internationalization process in accordance with the enterprises' extent of involvement into export activity. On this basis the companies are differentiated as: avoiding export orders, sporadically undertaking export activities, making export attempts, exporting to one or more countries, aspiring to take over a whole region or country and finally achieving global dimensions or born - global from the start.

On the basis of review of specialist literature for the needs of this research it is assumed that internationalization is described as business activities which „cross national borders and intended to create value in organizations" (Knowles, Mughan, & Lloyd-Reason, 2006). Additionally, internationalization processes shall be considered in the light of such attributes as: know-how, cooperation networks, IT and enterprising bases, as well as organization skills occurring in SMEs. Keeping track with recent SMEs internationalization research it is found, that they comprised of the impact analysis of key success factors to functioning effectiveness (Crick, Bradshaw, & Chaudhy, 2006; Wheeler, Ibech, & Dimitratos, 2008). In the past also research of SMEs internationalization processes was executed in the context of individual aspects: know-how (Fletcher, Cassuli, & Jones, 2007; Thomas-Morgan & Jones, 2009), company's location (Westhead, Ucasaran, & Binks, 2004; Reiner, et. al., 2008), management staff's skills (Anderson, Bookcock, & Graham, 2001; Manolova, et. al., 2002; Knowles, Mughan, & Lloyd-Reason, 2006), occurring cultural differences (Arranz & Arroyabe, 2009) and other factors beneficial for international expansion. The subject of research were SMEs with varied functioning specifics (family and non-family companies) (Fernandez & Nieto, 2005), retail companies (Fillis, 2004) and craft companies (Hutchinson, Quinn, & Alexander, 2006) located in different places.

## Information Technology

IT capability has been conceptualized in terms of managerial and technological capabilities (Zhang & Sarker, 2008). Bharadwaj (2000) define firm's IT capability as its "ability to mobilize and deploy IT-based resources in combination or copresent with other resources and capabilities." Prasad, Ramamurthy, and Naidu (2001) refer IT managerial skills to firms' ability to use IT to support and enhance their distinctive competencies and skills in other business functions. Tippins and Sohi (2003) define IT competency as the extent to which a firm is knowledgeable about and effectively utilizes IT to manage information within the firm. For the purposes of this study, based on the definitions above, we define IT capability as "firm's ability to acquire, deploy and leverage its IT related resources in combination with other resources and capabilities in order to achieve business objectives."

Review of the literature suggests that IT capability as a multidimensional construct. Bharadwaj, Sambamurthy, and Zmud (1999) perceive IT capability as a construct which is composed of six underlying dimensions: IT-business partnerships, external IT linkages, business IT strategic thinking, IT business process integration, IT management and IT infrastructure. Other categorization schemes have also been developed. For example, Tippins and Sohi's (2003) model consists of IT knowledge, IT operations and IT objects. Based on previous research, Wade and Hulland (2004) suggest a typology of eight key information systems resources: external relationship management, market responsiveness, IS-business partnerships, IS planning and change management, IS infrastructure, IS technical skills, IS development and cost effective IS operations.

## Linking Between Empowerment, Innovativeness, Internationalization, and Firm Performance

Based on literature review we have found that studies of relationships between empowerment, innovativeness, internationalization and performance of SMEs are few and fragmentary and, moreover, there is a lack of simultaneous investigation of these processes. Table 1 presents empirical studies conducted so far in this field.

**TABLE 1**  
**EMPIRICAL STUDIES ON SMES**

<b>Authors</b>	<b>Characteristics of Studies</b>
<b>Innovativeness and firm performance</b>	
Miguel Hernandez-Espallardo and Elena Delgado-Ballester (2009)	Relationship between product innovation, market orientation, the industry's five competitive forces and performance (218 Spanish manufacturing SMEs).
Helen Salavou and George Avlonitis (2008)	Relationship between product innovation and firm performance (128 Greek SMEs).
David R. Low, Ross L. Chapman, and Terry R. Sloan (2007)	Relationships between innovation, market orientation and firm performance (73 Australian manufacturing SMEs).
Adegoke Oke, Gerard Burke, and Andrew Myers (2007)	Impact of innovation types (incremental and radical) on firm performance (108 British SMEs).
Carol Yeh-Yun Lin, and Mavis Yi-Ching Chen (2007)	Relationships between innovation and performance (877 SMEs in Taiwan).
Halit Keskin (2006)	Examining relations among innovativeness, market-orientation, learning-orientation and firm performance (157 SMEs in Turkey).

**TABLE 1**  
**CONTINUED**

Felix T. Mavondo, Jacqueline Chimhanzi, and Jillian Steward (2005)	Relationship between learning orientation, market orientation, innovation, human resource practices and firm performance (220 Australian SMEs).
Mark S. Freel and Paul J. A. Robson (2001)	Examining the effect of firms' innovation activities on their growth performance (1347 manufacturing and service SMEs in Scotland and Northern England).
<b>Internationalization and firm performance</b>	
Collin Wheeler, Kevin Ibech, and Pawlos Dimitratos (2008)	The influence of external and internal factors of internationalizing on the exports performance of the SMEs (33 SMEs in UK).
Nelly Daszkiewicz (2008)	The influence of the size of the firm, economic situation and cooperative on the realized export (761 SMEs in Poland).
Lianxi Zhou, Wei-ping Wu, and Xueming Luo (2007)	The comparison of the influence of kinds internationalization on performance in the context of functioning the social nets of the co-operation (250 SMEs in China).
Lars-Anders Byber (2007)	The influence of the key factors of the internationalizing establishes on the performance of functioning the enterprises (239 SMEs in Sweden).
David Crick, Robert Bradshaw, and Shiv Chaudhy (2006)	The comparison of the internationalization process family and not family SMEs in the context of performance beyond the borders of the country (22 SMEs in UK).
<b>IT and firm performance</b>	
Brian R. Webb and Frank Schlemmer (2009)	Relationship between IT assets, Internet and financial performance (146 Irish SMEs).
Man Zhang, Saonee Sarker, and Suprateek Sarker (2008)	Impact of IT capability on firm performance (99 Chinese export-focused manufacturing SMEs).
Louis Raymond and Francois Bergeron (2008)	Analysis the alignment between e-business, business strategy and firm performance (107 Canadian manufacturing SMEs).
Doris M. Shaw (2006)	Relationship between IT maturity and customer-linking capabilities (199 small U. S. firms).
<b>Innovativeness and IT</b>	
Jun Li, Michael Merenda, and A.R. Venkatachalam (2009)	Examining the relationship between the extensiveness of business process digitalization and new product development (85 manufacturing SMEs in U. S.).
Clay Dibrell, Peter S. Davis, and Justin Craig (2008)	Investigation the mediating effects of information technology on the relationships among product and process innovations and firm performance (369 SMEs in U. S.).

**TABLE 1  
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<b>Internationalization and IT</b>	
Paul Harrigan, Elaine Ramsey, and Patrick Ibbotson (2009)	The comparison of advantages flowing from the use of solutions e-CRM on the international and national activity (286 SMEs in Irish).
Anna Thomas-Morgan and Marian V. Jones (2009)	The study the influence of knowledge, solutions of ICT, strategy and the channels of the sale on undertaken internationalizing (705 SMEs in UK).
Pia Arenius, Viveca Sasi, and Mika Gabriellson (2007)	The influence of Internet on internationalizing SMEs (a case study of a firm in Finland).
<b>Innovativeness and internationalization</b>	
James A. Wolff and Timothy L. Pett (2008)	Relations between internationalization and product and process improvement (182 SMEs in U. S.)
Aron O’Cass and Jay Weerawardena (2009)	Examining the relationship between international entrepreneurship, innovation and international market performance (302 SMEs in Australia)
<b>Empowerment and internationalization</b>	
Gabrielsson (2007)	Examining the relationship between board empowerment and export activity (135 small Swedish firms).

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Most studies focus on psychological empowerment and consider individual perspective (Wang & Lee, 2009). Researchers combine empowerment with: job satisfaction (Ng & Sorensen, 2008) and loyalty, in relation to work performance (Niehoff et al., 2001). Relationship between empowerment and managerial trust has been also examined (Gomez & Rosen, 2001). There are few studies related to organizational level of employee empowerment and simultaneously combining the issues which are the subject of this work. For example, Hempel, Zhang, and Han (2009) analyzed data from 94 Chinese high-technology companies and found that team empowerment is significantly related to team performance. Moreover, organizational decentralization and formalization of organizational processes enhance empowerment. A study of UK manufacturing organizations also suggests relationship between empowerment and firm performance (Psoinos, Kern, & Smithson, 2000). The authors claim that "empowerment resulted from a desire to improve business performance and not as some form of charitable gesture," and "empowerment and IT/IS was an essential component of strategies such a BPR and TQM aimed at improving business performance." This study shows that IT facilitates decentralization and, as it was mentioned above, decentralization stimulates employee empowerment. Similarly, Wyner and Malone (1996), and Malone (1997) confirmed that IT can cause decentralization. Additionally, Hoffman (1994) claimed that empowerment is necessary for contemporary companies and needs to use new IT strategies.

The relationship between firm innovativeness and firm performance has been broadly investigated in literature. Studies focus mainly on large firms and associate innovation positively with performance (Calantone, Cavusgil, & Zhao, 2002; Hult, Hurley, & Knight, 2004; Lee & Tsai, 2005; Chen & Lee, 2008). Empirical studies generally also support a finding that innovation is important determinant of firm performance in SMEs. For example, it was found that there is a positive relationship between innovation and financial performance (gross profit margin) (Low, Chapman, & Sloan, 2007). Process innovation is

positively related to financial performance and administrative innovation is positively associated with operating efficiency (Mavondo, Chimhanzi, & Steward, 2005). Oke, Burke and Myers (2007) found that SMEs tend to focus more on incremental than radical innovations and this focus is related to growth in sales turnover. However, in some studies positive direct or immediate effects have not been found. For example, Freel and Robson (2004) highlight a negative, at least in the short term, relationship between product innovation and growth in sales or productivity for manufacturing firms. Some studies show that, for example, learning orientation, market orientation or competitive forces have an effect on relationship between innovation and firm performance (Keskin, 2006; Hernandez-Espallardo & Delgado-Ballester, 2009). Research has also been conducted in developing countries (Keskin, 2006; Lin & Chen, 2007). Nevertheless, the relation between innovativeness and firm performance has not been tested sufficiently in SMEs in Poland.

Empirical research conducted in different countries connects internationalization process and performance of SMEs. The literature highlights that SME involvement in international management and gaining international experiences have a positive effect on its financial (sales, revenues, profits) and non-financial (goal achievement, perceived success) measures. Moreover, collaboration with public sector (government support programs) facilitates small firms' international activities (Wheeler, Ibech, & Dimitratos, 2008). Empirical research shows correlation between firm size and increase the export activity of Polish companies. With the increase of firm size, collaboration is more developed and leads to the growth of export activity (Daszkiewicz, 2008). Studies conducted among Chinese SMEs suggest that home-based social networks play a significant mediating role in the relationship between inward and outward internationalization and firm performance (Zhou, Wu, & Luo, 2007). Export activities in family and non-family owned SMEs in the U.K. have similar impact on: sales volume, market share, and business profitability (Crick, Bradshaw, & Chaudry, 2006). Study of Swedish SMEs (Byberg, 2007) shows that relationship oriented market communication has a significant effect on export performance, including number of foreign markets. Furthermore, collecting foreign market information has an effect on profitability of export and the control variables and other background variables, firm size and region, have a significant influence on the amount of export markets. Spanish researchers (Arranz & Arroyabe, 2009) claim that larger firms achieve superior performance by internationalization and SMEs should participate in internationalization process by collaboration with other firms.

The literature presents the connection of the SMEs' internationalization process with IT. For example, firms serving international markets place greater emphasis on electronic-customer relationship management (e-CRM) and reaping greater benefits in comparison with domestic firms (Harrigan, Ramsey, & Ibbotson, 2009). Using internet technologies contributes to an increase of international sales and has a positive impact on the level of international diversification (Thomas-Morgan & Jones, 2009). The Internet enables to reduce direct costs which are related with geographical distance. Using the Internet as a sales channel reduces costs of firm adjustment to economic and legal conditions in other countries. In conclusion, IT facilitates international development of SMEs and has particularly a positive effect on customer relationship management (Arenius, Sasi, & Gabriellson, 2007). Wolff and Pett (2006) confirm that internationalization is positively correlated with growth performance and, moreover, is positively related to product and process improvements in SMEs. A study by O'Cass and Weerawardena (2009) also found a significant relationship between international entrepreneurship and organizational innovation intensity.

Empirical research of relationship between IT and firm performance mainly focus on large firms. A number of studies were conducted in US-based firms. For example, it was found that IT capability has a direct and positive impact on firm performance (Sanders & Premus, 2005); firms with high IT capability tend to outperform firms with low IT capability on a variety of profit and cost-based performance measures (Bharadwaj, 2000); the relationship between externally focused IT capabilities and performance is stronger for firms operating in environments characterized by high dynamism, high munificence, and high complexity (Stoel & Muhanna, 2009). On the other hand, it was also found that firms' total IT investment is not associated with firm performance (Aral & Weill, 2007). However, SMEs differ from large firms in various ways. The characteristics of SMEs include for example: resource constraints,

especially time and finance, personalized approach to management, a "survival mentality" and lack of strategic planning (Gilmore, et. al., 1999). Thus, it would not be correct to assume without results of empirical research that link between IT and performance in SMEs is the same as in large firms. However, empirical studies in this field are limited. In general, research suggests that SMEs benefit from using IT. For example, Shaw (2006) found a positive association between IT resources management activities and the ability to retain, respond and satisfy customers. Zhang and Sarker (2008) claim that the overall multidimensional IT capability has a significant and positive impact on the international performance, in contrast to external IT linkages and IT business process integration. Webb and Schlemmer's (2009) results suggest that IT assets are related to Internet performance, but no affect IT assets on financial performance of SMEs. Moreover, the relationship between IT assets and financial performance is significantly negative for Internet-leading companies.

A review of literature reveals mixed result in regard to an effect of IT on firm performance. The inconsistencies can be attributed to different measures of IT and performance used in the studies. Some researchers argue that IT cannot provide competitive advantage because it is too easily duplicated (Tippins & Sohi, 2003). Therefore, Bharadwaj, Sambamurthy, and Zmud (1999) claim that firms "should not focus on singular applications whose competitive advantage is short-lived but should focus on creating a firm-wide IT capability that enables continuous innovation and adaptation to changing environment." Furthermore, some researchers suggest that IT does not have a direct effect on firm performance but IT can be used to leverage other resources and strengthen their impact on firm performance (Webb & Schlemmer, 2009; De Burca, Fynes, & Brannick, 2006). For example, some previous studies have examined relationships between IT capability, firm performance and: organizational learning (Tippins & Sohi, 2003), customer orientation (Zhu & Nakata, 2007) or innovation (Dibrell, Davis, & Craig, 2008).

The literature suggests complementary relationship between innovativeness and IT (Huang & Liu, 2005). Investment and adoption of IT are perceived as innovative activities and, on the other hand, IT can enable or facilitate innovation (Markides & Anderson, 2006). The relationship has been examined in SMEs. For example, Dibrell, Davis, and Craig (2008) found that the impact of innovation on performance is primarily indirect, felt via IT investment. Li, Merenda, and Venkatachalam (2009) claim that new product development is positively related to the extensive use of business process digitalization.

## THE FULL CONCEPTUAL FRAMEWORK

Based on current literature review we claim that there have been attempts to explain the impact of employee empowerment, innovativeness and internationalization on firm performance. However, a common approach to these issues has not been developed so far. Some previous studies have examined the relationships between these processes but these studies have a fragmentary nature, limited to the relationships only between two processes. It is also important to provide recommendations for Polish SMEs, which have not been completely investigated in this field. Employee empowerment, innovativeness and internationalization are perceived as sources of competitive advantage in SMEs. Because they intertwine and interconnect in a network of feedback relationships, the need of analyzing them seems to be reasonable. Our work combines previous work in this field and innovatory, complex approach to investigate relationships between employee empowerment, innovativeness, internationalization and firm performance in the context of IT capability. We decided to develop our theoretical research, presented in the previous sections, and conduct empirical research.

Taking into consideration IT's increasing sophistication and usage, we expect that

*Hypothesis 1: IT capability is positively related to employee empowerment, innovativeness and internationalization.*

Previous studies suggest that IT capability not only has a direct impact on various resources and capabilities, but it also modifies relationships between them. In particular IT capability can be used to strengthen these relationships. Thus, we state an aggregated hypothesis,

*Hypothesis 2: IT capability has a moderating effect on the relationship between employee empowerment, innovativeness, internationalization and firm performance of SMEs.*

The hypothesis 2 consists of following detailed hypotheses,

*Hypothesis 2a: IT capability has a moderating effect on the relationship between empowerment and firm performance of SMEs.*

*Hypothesis 2b: IT capability has a moderating effect on the relationship between innovativeness and firm performance of SMEs.*

*Hypothesis 2c: IT capability has a moderating effect on the relationship between internationalization and firm performance of SMEs.*

Literature presents mainly results of studies for bilateral relationships, for example between empowerment and firm performance or between innovativeness and firm performance. But it is known that strength of influencing each resource and capability may change depending on the impact of other resources or capabilities. Thus, we predict that

*Hypothesis 3: Empowerment, innovativeness, internationalization and IT capability have an effect (separately and together) on firm performance of SMEs.*

The hypothesis 3 consists of following detailed hypotheses

*Hypothesis 3a: Empowerment has an effect on firm performance of SMEs.*

*Hypothesis 3b: Innovativeness has an effect on firm performance of SMEs.*

*Hypothesis 3c: Internationalization has an effect on firm performance of SMEs.*

*Hypothesis 3d: IT capability has an effect on firm performance of SMEs.*

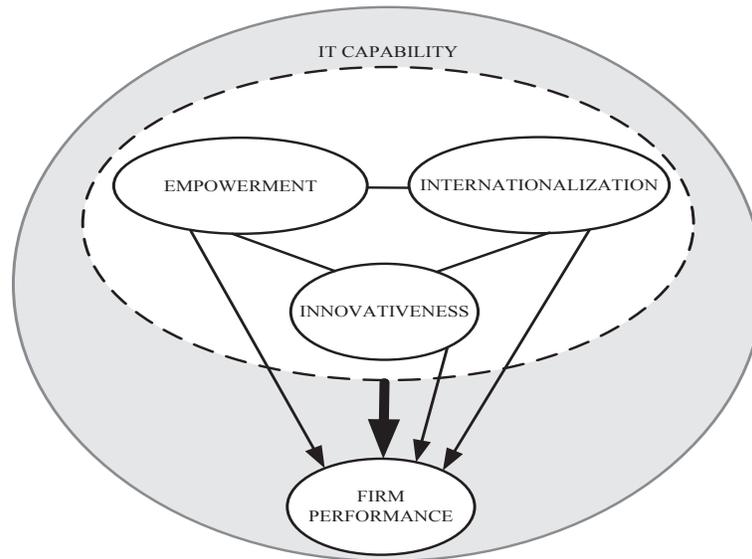
*Hypothesis 3e: Result of the total effect of all processes on firm performance is not the sum of results of the effect of each of the process separately on performance.*

Realizing that SMEs are not a homogeneous set of firms and caring about reliability of our research, we decided to state hypothesis

*Hypothesis 4: Control variables (for example industry, size, age) have an effect on the examined relationships.*

The stated hypotheses implicate a following conceptual model (Figure 1). Our conceptual model fulfills the identified gap and extends previous studies including: employee empowerment, innovativeness and internationalization, placing them in the context of IT capability.

**FIGURE 1  
CONCEPTUAL MODEL**



## CONCLUSIONS AND FURTHER RESEARCH

Investigations of Polish SMEs have so far been few and fragmentary. In the next stage of our study, an empirical research will fill in this research gap. The research sample is restricted to SMEs that are members of the Regional Chamber of Commerce in Katowice (RIG). RIG is one of the biggest economic organizations in Polish local governments and gathers about 400 member enterprises. The analysis of the collected data by means of quantitative methods will enable the testing of the stated hypotheses.

We think our survey instrument will be used in economic practice. Moreover, we would like to formulate some recommendations for SME leaders which help to improve organizational effectiveness. Apart from utilitarian purposes, it is important to accomplish theoretical purposes. We assumed five main theoretical purposes:

1. Operationalization, in regard to SMEs, of multidimensional concepts: employee empowerment, innovativeness, internationalization.
2. Determining interrelationships between employee empowerment, innovativeness, internationalization and performance of SMEs, placing them in the context of IT capability.
3. Determining the effect of control variables (for example industry, size, age) on the relationships.
4. Determining the effect of IT capability on employee empowerment, innovativeness, internationalization and the effect of IT capability on relationships between these processes.
5. Determining the character of the effect (direct or indirect) of the individual processes on performance of SMEs.

We plan to compare our achieved results with results of similar studies conducted in other countries and identify reasons of potential differences.

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